

REMARKS

No claims have been added or canceled by this response. Accordingly, claims 1-28 remain pending.

Applicant respectfully requests reconsideration of the instant application in view of the following remarks.

REJECTION UNDER 35 U.S.C. §103

Claims 1-28 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Van Watermolen et al., U.S. Pat. No. 6,604,046 in view of Amicangioli, U.S. Pat. No. 6,535,509. However, the Van Watermolen and Amicangioli patents fail to disclose multiple features recited by the pending claims. Accordingly, this rejection is respectfully traversed.

Independent claim 1 recites a server comprising, among other things, a dispatcher having a queue for storing connection requests received from clients. Additionally, claim 1 recites the dispatcher as storing one or more connection requests in the queue when a back-end server is unavailable, and as retrieving one or more connection requests from the queue when the back-end server becomes available.

In contrast to the server of claim 1, Van Watermolen merely discloses a system 100 specifically configured for providing map data to clients ranging from mobile telephones to PDAs to workstations. As shown in Fig. 1, the system 100 includes a web server 130 and a map server 140. The web server 130 communicates with various clients 110 through a firewall 120.

In rejecting claim 1, the Patent Office contends that Van Watermulen discloses a dispatcher having a queue for storing connection requests. However, the Office action does not identify any specific disclosure or suggestion by Van Watermulen of a dispatcher, or a dispatcher having a queue for storing connection requests. Moreover, Applicant finds no disclosure of such a dispatcher by Van Watermulen.

Van Watermulen does teach that client devices can include map-related caches 116.1 and 118.1. Additionally, Van Watermulen's system 100 includes a FIFO-based connection pool 132.1 for supporting such map-related caches. See column 4, line 59 through column 5, line 8. However, there is no disclosure of the connection pool 132.1 including a queue, nor is there any disclosure of storing connection requests in a queue. On the contrary, Van Watermulen teaches that if a new connection is attempted when none of the present connections are available, the new connection is not opened. See column 5, lines 14-21. There is no disclosure or suggestion of storing the new connection request, in a queue or otherwise, until a back-end server becomes available. Amicangioli fails to overcome these shortcomings of Van Watermulen.

Accordingly, because Van Watermulen and Amicangioli fail to disclose or suggest a dispatcher having a queue for storing one or more connection requests when a back-end server is unavailable, and for retrieving one or more connection requests from the queue when the back-end server becomes available, the rejection of claim 1 should be withdrawn. Claims 2-6 depend from claim 1 and are therefore allowable for at least the same reasons.

Page 4 of the Office Action states that claims 7-28 have similar limitations as claims 1-6 and are therefore rejected on the same basis. Applicant respectfully

disagrees with this assertion and will now explain how claims 7-28 are clearly distinguishable over Van Watermulen and Amicangioli.

Independent claim 7 recites a method that includes receiving a plurality of connection requests from clients, establishing a number of concurrent connections between a server and clients, and storing at least one of the connection requests until one of the established connections is terminated. Similarly, independent claim 22 recites a method which includes storing one or more connection requests until a concurrent connection is terminated. As explained above in connection with the rejection of claim 1, and contrary to the assertions made in the first Office action, Van Watermulen and Amicangioli lack any disclosure or suggestion of storing connection requests until an established connection is terminated. Accordingly, the rejection of claims 7 and 22, and claims 8-15 and 23-24 which depend therefrom, respectively, should be withdrawn.

Independent claim 16 recites a method for controlled server loading. The method includes defining a maximum number of concurrent connections that a server is permitted to support, monitoring the server's performance, and dynamically adjusting the maximum number in response to the monitoring to thereby adjust the server's performance. Similarly, independent claim 25 recites a method for controlled loading of a cluster-based server. The cluster-based server includes a dispatcher and a plurality of back-end servers. The method includes defining, for each back-end server, a maximum number of concurrent connections that can be supported, monitoring the performance of each back-end server, and dynamically adjusting the maximum number for at least one of the back-end servers in response to the monitoring to thereby adjust

the performance of the cluster-based server. The Patent Office contends, in connection with the rejection of claim 2, that Amicangioli discloses these recited features. Applicant respectfully disagrees.

Amicangioli discloses using a selectivity period to allow a cache server 150 to run at an optimum rate. See column 15 lines 5-13. The selectivity period, determined by a timer circuit 314, switches between a selective and non-selective mode to allow two types of new connections to be routed and serviced by cache server 150, both of which Amicangioli labels as SYN. The first connection, a selective connection, is a SYN having an IP address stored in a selective connection table 430. This table maintains a list of IP addresses of servers 170 that contain the most popular objects stored in cache server 150. The other type of SYN does not have an IP address in selective connection table 430. In the selective mode, a selective connection is permitted to be routed to cache server 150. In the non-selective mode, any occurring SYN is permitted to be routed to cache server 150. See column 10 lines 5-65. Amicangioli explains that the selectivity period controls the rate at which cache 150 accepts new connections. See column 14 lines 39-41. If the selectivity period is set to a high value, the number of serviced connections by cache server 150 will be relatively low. However, as the selectivity period is reduced, the number of serviced connections increases. See column 15 lines 18-24.

Amicangioli, therefore, discloses controlling server loading by controlling the rate at which new connections are routed to cache server 150, and not by defining a maximum number of concurrent connections that a server is permitted to support, monitoring the server's performance, and dynamically adjusting the maximum number

in response to the monitoring. Accordingly, Applicant respectfully submits that the rejection of claims 16 and 25, and claims 17-21 and 26-28 which depend therefrom, respectively, should be withdrawn.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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